

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
WATKIN Timothy Lawrence Harvey  
Lloyd Wise  
Tanjong Pagar  
P O Box 636  
Singapore 910816

LLOYD WISE

22 APR 2005

**PCT**

RECEIVED  
NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Rule 71.1)

Date of mailing (day/month/year)	13 April 2005 (13.04.2005)
-------------------------------------	----------------------------

Applicant's or agent's file reference  
**FP2045**

## IMPORTANT NOTIFICATION

International application No. <b>PCT/SG 2003/000261</b>	International filing date (day/month/year) <b>10 November 2003 (10.11.2003)</b>	Priority Date (day/month/year) <b>18 November 2002 (18.11.2002)</b>
--	--	--

Applicant

**AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH**

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### **4. REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the IPEA/AT  
**Austrian Patent Office  
Dresdner Straße 87  
A-1200 Vienna/Austria  
FAX No. +43 / 1 / 53424-200**

Authorized officer

**HOFBAUER**

Telephone No. **+43 / 1 / 53424 - 225**

LLOYD WISE

22 APR 2005

RECEIVED

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>FP2045</b>	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. <b>PCT/SG 2003/000261</b>	International filing date ( <i>day/month/year</i> ) <b>10 November 2003 (10.11.2003)</b>	Priority Date ( <i>day/month/year</i> ) <b>18 November 2002 (18.11.2002)</b>
International Patent Classification (IPC) or national classification and IPC <b>IPC<sup>7</sup>: C12Q 1/00, 1/68</b>		
Applicant <b>AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I.  Basis of the opinion
- II.  Priority
- III.  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV.  Lack of unity of invention
- V.  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI.  Certain documents cited
- VII.  Certain defects in the international application
- VIII.  Certain observations on the international application

Date of submission of the demand <b>03.06.2004</b>	Date of completion of this report <b>1 April 2005 (01.04.2005)</b>
Name and mailing address of the IPEA/AT Austrian Patent Office Dresdner Straße 87 A-1200 Vienna Facsimile No. 1/53424/200	Authorized officer <b>MOSSER R.</b> Telephone No. 1/53424/437

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/SG 2003/000261

**I. Basis of the report**

1. With regard to the elements of the international application:\*

the international application as originally filed

the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

the claims:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, as amended (together with any statement) under Article 19

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

the drawings:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

the language of publication of the international application (under Rule 48.3(b)).

the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

contained in the international application in printed form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_.

the claims, Nos. \_\_\_\_\_.

the drawings, sheets/fig \_\_\_\_\_.

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/SG 2003/000261**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement		
Novelty (N)	Claims 3-5, 15-30, 32-34	YES
	Claims 1, 2, 6-14, 35-46	NO
Inventive step (IS)	Claims 31	YES
	Claims 1-30, 32-46	NO
Industrial applicability (IA)	Claims 1-46	YES
	Claims ----	NO
Citations and explanations (Rule 70.7)		

The following documents have been cited in the Search Report:

D1: WO1999/060005 A1

D2: VAN BURIK, J.A. et al. Comparison of six extraction techniques for isolation of DNA from filamentous fungi. Medical mycology, 1998, Vol. 36, No. 5, pages 299 - 303, Medline-abstract [online], [retrieved on 30-03-2003]. Retrieved from: EPOQUE Medline Database, AN: NLM10075499

Present claim 31 concerns a micromechanical system which is especially used for the preparation and/or analysis of cell compounds such as nucleic acids. Such a micro-system with chambers connected with microtubes is also supported by the figures and the description. A device characterised by claim 31 is not obvious from D1 and D2. Claims 1-30 and 32-46 are not restricted to a microsystem. Most claims concern generally known steps which are performed when a DNA is isolated from biological material. These steps usually comprise any kind of mechanical disruption and/or enzymatic lysis. Claims 1 and 2 as well as D1 and D2 concern simple well known nucleic acid isolation protocols. Claim 3 is the first claim concerning chambers. However, from this and the following claims which pertain to chambers it is not clear which kind of chambers are meant. Thus, these chambers may be ordinary reaction tubes which are used in many laboratories. D1 shows channels which are comparable with the disruption channels of the present application (see for example claim 5). Therefore, this document comes closer to the subject-matters of the claims than D2.

Claims 1, 2, 6-14, and 35-46 concern routine steps for e.g. DNA isolation which are either revealed in D1 and D2 or are so well known for a person who works in a laboratory that novelty is not recognized for the subject-matters of these claims. The remaining claims 3-5, 15-30 and 32-34 concern chamber systems. D1 also concerns a chamber system which influences cell disruption. Therefore, the subject-matters of these claims are obvious from this patent document.

Industrial applicability for the subject-matters of all claims is self-evident.